ANTLR4
ANTLR (ANother Tool for Language Recognition) is a parser generator designed by Terrence Parr. It allows programmers to easily build powerful parsers very quickly. You can visit the antlr site [www.antlr4.org](http://www.antlr4.org) for more on antlr.

ANTLR can be broken down into several parts:

- **Lexer** The lexer breaks the input text up into tokens and sends the tokens to the Parser.
- **Parser** The parser reads the stream of tokens and figures out what parse pattern they fall into. The parser builds Parse trees based off these patterns.
- **Listener** The listener is designed to walk through the parse tree generated by the parser. It walks up and down the parse tree automatically.
- **Visitor** The visitor visits each node in the parse tree similarly to how the Listener works. The major difference between the two is that the programmers must explicitly make a call to the visit method on child nodes in order to visit them.

## 1 Lexar

The lexar takes input texts and breaks it up into tokens. To understand this